

## SigTEL Type A Fire Telephone Outstation Instructions

This document provides supplementary information to that provided in the SigTEL Compact 1-16 Line Installation and Configuration Manual (Document No. DAU0000081) and SigTEL 16-128 Line Installation and Configuration Manual (Document No. DCP0001483). For further details, refer to the main installation manuals.



**THIS EQUIPMENT MUST ONLY BE INSTALLED AND MAINTAINED BY A SUITABLY SKILLED AND TECHNICALLY COMPETENT PERSON. ENSURE THAT ALL POWER IS REMOVED FROM THE SYSTEM BEFORE INSTALLATION.**

**Note:** Emergency Voice Communication (EVC) fire telephone system design is beyond the scope of this document. An understanding of EVC system components and their use is assumed. The following regulations apply for this product:

- BS 5588 Fire precautions in the design, construction and use of buildings; Part 5 Code of practice for firefighting stairs and lifts, Part 10 Code of practice for shopping complexes, Part 11 Code of practice for shops, offices, industrial, storage and other similar buildings.
- BS 5839 Part 9 Fire detection and alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems.
- Fire telephone systems for sports venues are called for by the Guide to Safety at Sports Grounds.

### PRODUCT DESCRIPTION

The SigTEL Type A Fire Telephone Outstation provides duplex speech and is used as part of an EVC fire telephone system. The fire telephone system provides reliable two-way communication in a fire emergency between a permanently manned control room and key points on the site.

The outstation consists of a telephone-style handset housed within a wall-mounted, red steel case. The outstation may be lockable to prevent unauthorised access, in which case keys must be issued by the person responsible for the EVC system. They can be either surface mounted, or a flush mounting bezel is available.

Type A outstation related products are listed below:

**THS1-E/MK4:** Fire telephone EVC outstation, c/w red steel case, handset & key (see right).

**THS1-ET/MK4:** Fire telephone EVC outstation, c/w red steel case, handset & T-Bar.

**T-BEZ:** Red flush bezel for THS1-E/MK4 and THS1-ET/MK4.

**THS/MK4:** Red desk mounted telephone ONLY.



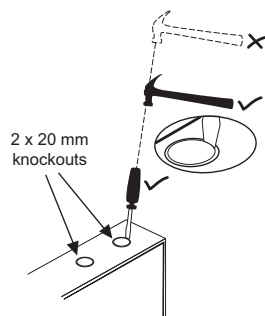
### INSTALLATION

#### Location

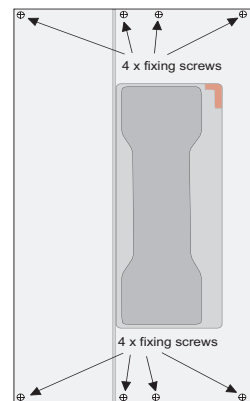
Type A outstations should normally be sited indoors at entrances and fire-fighting lobbies, normally mounted 1.3 m to 1.4 m above final floor level. In sports stadiums, they should be located no more than 30 metres from stewards' positions, or other normally manned areas as listed in the Guide to Safety in Sports Grounds. The outstations should be well illuminated, easily accessible, in a prominent position and free from obstruction. Ideally, the outstation should be located where background noise is relatively low (no more than 40 dBA). In areas where there is a higher level of background noise an acoustic hood may be used around the outstation to reduce background noise to an acceptable level.

#### First Fix

For first fix, open the outstation's door and unscrew the eight fixing screws holding the internal cover (see right). This reveals the outstation's terminals and earth stud. Disconnect the outstation's Red and Green wires at the terminals (see diagram overleaf). Remove the internal cover and keep it safe.



The incoming cable from the main exchange should be fed into the outstation's case via 20 mm knockouts located in the top and bottom of the case. Remove knockouts with a sharp, light tap using a flat 6 mm broadsided screwdriver as shown in diagram (see left). Always ensure that if a knockout is removed, the hole is filled with a good quality 20mm cable gland. Any unused knockouts must be securely blanked off.



#### Mounting

**Note:** Refer to Document No. DCP0001783 (supplied in Accessory Pack) which shows a template for wall mounting the outstation, either surface or flush mounted. Cut-outs required with, or without, a bezel is also shown.

Using the four mounting holes, fix the outstation to a wall using suitable screw fixings. Any dust or swarf created during the mounting process must be kept out of the outstation and care must be taken not to damage any wiring or components. If a bezel is used then glue the bezel to the hole in the wall using mastic (supplied).

## Wiring and Testing Outstation Lines

Outstation lines require 2-core enhanced fire-rated cable, size 1 mm<sup>2</sup> to 1.5 mm<sup>2</sup>. The maximum recommended cable resistance 40 ohms, which is 1000 m of 1 mm<sup>2</sup> cable. If this is exceeded, outstations may not work properly, e.g. audio quality may degrade and the fault monitoring system may not work.

**CAUTION: DO NOT test wiring with an insulation resistance tester (Megger) with any electronic equipment connected because the 500 volt test will destroy the components which will not be covered by factory warranty.**

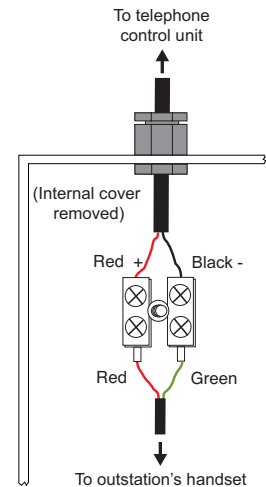
Test all outstation lines for faults before terminating outstation lines. In addition, test outstation lines using a FITT telephone line tester.

After outstation lines have been tested and are fault-free, terminate the cable between the main exchange and the outstation. The outstation's terminations (Red +Ve and Black -Ve ) are shown right. Reconnect the outstation's Red and Green wires at the terminals (see right) and secure the outstation's internal cover back in place by inserting the eight fixing screws.

Refer to the main installation manuals for testing and connections at the main exchange.

## Commissioning the Outstation

Perform an automatic configuration at the main exchange to enable the system to search for connected outstations. Refer to the main installation manuals for configuration procedure at the main exchange.



## OPERATION

### Making a Call from the Outstation

Open the outstation's door and lift the handset (there is no need to dial from the outstation as the system automatically calls the operator in the control room). A double 'beep-beep' ringing tone sounds in the earpiece and the red light on the handset's base extinguishes. In the control room the operator is notified of the incoming call and can choose to answer. If the operator is talking to another outstation, an engaged tone (continuous short pips) sounds in the earpiece. When the call is answered in the control room the ringing tone stops and a two-way conversation can commence. To end the call, simply replace the handset back on-hook.

### Receiving a Call at the Outstation

When the operator in the control room calls the outstation, the red light on the handset's base pulses and a pulsed ringing tone is heard at the outstation. Open the outstation's door and lift the handset. The red light on the handset's base extinguishes, the ringing tone stops and a two-way conversation can commence.

## TECHNICAL SPECIFICATION

<b>Input voltage (from main exchange):</b>	10.7 VDC quiescent, 5 VDC in use
<b>Current consumption @24 VDC:</b>	1 mA quiescent, 25 mA in use
<b>Microphone frequency response:</b>	250 Hz to 5 kHz $\pm$ 3 dB
<b>Earpiece frequency response:</b>	250 Hz to 4 kHz $\pm$ 3 dB
<b>Outstation cable type:</b>	1 x 2-core enhanced fire-rated cable, size 1.0 mm <sup>2</sup> to 1.5 mm <sup>2</sup> . Max. cable resistance is 40 ohms per line, which is 1 km of 1 mm <sup>2</sup> cable.
<b>Cable knockouts:</b>	4 x 20 mm diameter
<b>Indicator:</b>	Red light on handset's base – Lit when handset on-hook, extinguished when off-hook.
<b>Dimensions:</b>	THS1-E/MK4: 350 mm(h) x 200 mm(w) x 105 mm(d). THS1-ET/MK4: 345 mm(h) x 200 mm(w) x 125 mm(d). T-BEZ: 395 mm(h) x 242 mm(w) x 6 mm(d).
<b>Weight:</b>	THS1-E/MK4 & THS1-ET/MK4: 3.8 kg (unpacked), 4.5 kg (packed) approx. T-BEZ: 0.27 kg (unpacked), 0.3 kg (packed) approx.
<b>Case colour:</b>	Red (RAL 3000)
<b>Accessory pack:</b>	1 x Instructions – Document No. DAU0000001 (this document), 1 x Template for wall mounting – Document No. DCP0001783, 2 x key (for opening/closing the outstation's front cover), 4 x blind grommets 20 mm rubber, 1 x set of security fasteners (8 x machine screw pin hex button head).
<b>Operating conditions:</b>	The outstation's case is designed for indoor use only. The outstation components must not be subjected to conditions likely to affect its performance, such as damp, salt air, water, extreme temperatures, physical abuse etc. Temperature range: -5 °C to +40 °C. Max. relative humidity: 95 %.

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